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March 24, 1997

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Ruth Milkman
Deputy Chief
International Bureau
Federal Communications Commission
2000 M Street, N.W. Room 821
Washington, D.C. 20554

Re: IB Docket 96-220

Dear Ruth:

On behalf of Final Analysis Communication Services, Inc. ("Final Analysis") this letter is to follow up on issues raised at a meeting on March 17, 1997 with several staff members of the International Bureau¹ as well as to summarize subsequent and continuing efforts to refine the technical details of the proposal presented at that meeting. These matters also have been discussed in separate telephone conversations between myself and Cassandra Thomas and Harry Ng.

The presentation made on March 17, 1997 reflected further refinements of the Systems X and Y plan originally put forth as the Parties' Proposal at the status conference on February 21, 1997. As you know, since that status conference, the second round applicants have continued to meet, multilaterally and bilaterally, to attempt to finalize the details of a mutually agreeable industry solution to apportion the available spectrum among all second round participants, achieve coordination among spectrum users, and avoid mutual exclusivity. During this technical refinement process CTA Commercial Systems, Inc. ("CTA") has also agreed to the industry approach. The revised Parties' Proposal has now been endorsed by six of the seven second round applicants.

¹ Notice of this meeting has been made separately. See Notice of Ex Parte Presentation by letter dated March 17, 1997, by Aileen A. Pisciotto, Counsel for Final Analysis to William F. Caton, Acting Secretary of the FCC.

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Ruth Milkman, Deputy Chief

March 24, 1997

Page 2

Although there are some relatively minor technical details that remain to be finally resolved, we wanted to take this opportunity to underscore that agreement has in fact been achieved on all critical facets of a workable solution. In particular:

1. Accommodation of all applicants - The solution does not give any one applicant all that it wants, but it accommodates each applicant's requirements to enter the market according to their stated needs. Specifically, it accommodates first round licensees by protecting them from harmful interference and recognizing spectrum expansion opportunities for Orbcomm. It also accommodates all of the unlicensed second round applicants by recognizing E-Sat's ability to share across the 137-138 MHz band using CDMA strategies in accordance with criteria established by GE Starsys², identifies specific spectrum for CTA, and identifies two equivalent spectrum segments for large systems for Final Analysis and Leo One USA.
2. Downlinks - The Parties' Proposal included two downlink systems: X and Y, each of which includes some spectrum in the 137-138 MHz band and some spectrum in the 400 - 401 MHz band. The refined proposal, Systems X, Y and Z, is very similar with two essential refinements:
 - a. Because CTA has agreed to reduce the size of its system, it's downlink requirements (both feederlink and service link) can be fully accommodated in the 137-138 MHz band (System Z).
 - b. Use of the 137-138 MHz band by two large constellations (Systems X and Y) is limited to feederlinks only. All service links for these two systems are accommodated in the 400 - 401 MHz band. This solution greatly reduces interference to GE Starsys to within acceptable levels and simplifies coordination with NOAA. Some frequencies remain in the middle of the NOAA bands which might be made available to the second round applicants. The Parties are currently discussing this issue

² A separate meeting on this issue was held with the Commission on March 19, 1997. See Notice of Ex Parte Presentation by letter dated March 20, 1997 by Peter Rohrbach, Counsel for GE Starsys Global Positioning, Inc. to William F. Caton, Acting Secretary of the FCC.

Ruth Milkman, Deputy Chief
March 24, 1997
Page 3

and aim to have a concrete proposal, accommodating all of the second round applicants, within the next couple of days.

3. Uplinks - It has become clear since the status conference that only 100 kHz are available in the 149.9 - 150.05 MHz band for uplink feederlinks. The Parties, including first round licensees, have agreed to approaches whereby existing feederlink spectrum would be divided among System Z (with reduced spectrum requirements per CTA's agreement), and Systems X and Y. The Parties are still discussing, and have raised with Commission staff, the prospects for access to the upper transit band (399 MHz band) to alleviate this congestion. Concrete proposals also will be submitted on this issue in the next couple of days.

Additionally, as made clear during the presentation on March 17, 1997, the original band plan proposed by Leo One USA is not workable. The technical analyses performed by Final Analysis and GE Starsys and summarized in the March 17, 1997 presentation materials demonstrate that the proposal to assign one complete large system in each of the 400-401 and 137-138 MHz bands (Leo One USA's System A and B proposal) does not work technically. Such an arrangement creates an unacceptable level of interference to GE Starsys.

As it turns out, this conclusion is confirmed by Leo One USA's own analysis.³ However, Leo One USA's technical analysis was not served on the other parties and was not in hand to the applicants participating in the March 17, 1997 meeting. Therefore, Final Analysis takes this opportunity to clarify some of the points raised by Leo One USA.

First, the interference problems referred to by Leo One USA in connection with the Parties' Proposal are fully addressed by the current refinements. The revised proposal would result in only a 0.2 dB impact on GE Starsys -- well below its 0.7 dB margin. Whereas the

³ See Notice of Ex Parte Presentation by Letter dated March 6, 1997 by Robert A. Mazer, counsel for Leo One USA Corporation, to William F. Caton, Acting Secretary of the FCC.

Ruth Milkman, Deputy Chief

March 24, 1997

Page 4

Leo One USA's proposed System B would result 1.4 dB degradation for Final Analysis's system and 2.3 dB degradation for Leo One USA's system.⁴

Second, the plan does not result in more costly subscriber terminals for either Leo One or Final Analysis. The industry plan places the service links for both of the large systems in the 400-401 MHz band. It is the service links that affect the cost of the subscriber terminals. Since the user terminals will only need to operate in the 400-401 MHz band, and since Leo One's preferred system (its "System A") contemplated user terminals only operating in the 400-401 MHz band, the two proposals have the same result in terms of cost of terminals.⁵

Third, the System X, Y and Z proposal will not result in more complicated satellite tasking than other proposals. Indeed, most of the applicants, including Leo One, originally applied for feederlinks and service links to operate in separate bands. The industry plan maintains this concept, merely switching the band to be used for feederlinks. The complexity involved is no greater than that contemplated in the original applications.

Fourth, Leo One has expressed concerns about sharing in the 400-401 MHz band. Specifically, they appear to be concerned that if System X causes interference with the DMSP satellite, both Systems X and Y would have to shut down. However, this is a concern endemic to the use of the DMSP band by commercial users. For its part, Final Analysis has, over the past several years, built and tested equipment and satellite operations sufficiently that it can demonstrate today its ability to operate in the DMSP band without causing interference. Final Analysis does not feel that requiring DOD or NOAA to coordinate with two companies in this band, rather than one, is a credible objection to the System X, Y and Z plan. A point of contact or other coordination mechanism can easily be established.

⁴ In referring to these numbers to propose that Final Analysis should be assigned to System B, Leo One USA has referred to the 2.3 dB margin indicated in GE Starsys's April 25, 1994 Amendment. However, since that time, GE Starsys's margin has been reduced to 0.7 dB due coordination with Orbcomm.

⁵ CTA (System Z) also will have service links in only one band -- the 137-138 MHz band.

KELLEY DRYE & WARREN LLP

Ruth Milkman, Deputy Chief

March 24, 1997

Page 5

Fifth, the industry sharing plan does not contemplate or propose spectrum sharing for uplink gateways spectrum. Rather, the proposal calls for separate feeder uplink spectrum for CTA, Final Analysis, and Leo One USA.

Finally, Systems X and Y are fully fungible, totally eliminating any mutual exclusivity. Final Analysis has repeatedly assured the Commission that it will accept assignment to either System X or Y.

We believe that the revised Parties Proposal, as outlined above, provides a solution for licensing second round applicants that the majority of the industry feels is technically feasible and fair. Although additional spectrum ultimately is required for Little Leo operations, this plan provides each second round applicant with sufficient spectrum for initial and viable commercial operations. It also resolves the difficult procedural issues facing the Commission in this proceeding.

We will present final technical refinements as soon as possible, and will be pleased to answer any questions you may have.

Sincerely yours,



Aileen A. Pisciotto

Counsel to Final Analysis Communication Services, Inc.

cc: William F. Caton
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